

## Fairness resource allocation for downlink OFDMA systems

### ABSTRACT

Fairness is an important component in scheming resource allocation. It can fairly allocate the resources to all users. In this paper, we study and investigate fairness of resource allocation for downlink OFDMA in radio resource management system. The data rate is arranged among the users in order to schedule the best channel for achieving fairness of resource allocation. We use sub-carrier allocation algorithm based on maximization of the sum of logarithm user data rate. The simulation results show that the percentage of proposed fairness algorithm is 20% more efficient than the existing.

**Keyword:** OFDMA; Resource allocation; Fairness; Tradeoff; QoS